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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,540	04/06/2001	Stephen D. Paul	005140.P5252	5523

7590

12/21/2004

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EXAMINER

ZHONG, CHAD

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/828,540

Applicant(s)

PAUL, STEPHEN D.

Examiner

Chad Zhong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-38 are presented for examination.
2. It is noted that although the present application does contain line numbers in specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the Examiner and Applicant all future correspondence should include the recommended line numbering.
3. Applicant is required to update the status (pending, allowed, etc.) of all parent priority applications in the first line of the specification. The status of all citations of US filed applications in the specification should also be updated where appropriate.
4. The use of the trademark Java among others have been noted in this application (pg 3, [0007] for example). It should be capitalized wherever it appears and be accompanied by the generic terminology. Appropriate correction is required to the entire application.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-18, 24-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinnunen et al. (hereinafter Kinnunen), US 2001/0018349, in view of Hsieh et al. (hereinafter Hsieh), US 6,751,702,

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further in view of 'Official Notice'.

7. As per claim 1, Kinnunen teaches a method of dynamically discovering and configuring a new network device comprising:

registering the new network device with a lookup service (Fig 4);

periodically reading the lookup service from an administration terminal ([0143]);

responsive to the administration terminal detecting the new network device, notifying a human operator of the presence of the new network device through a graphical user interface on the administration terminal ([0099]-[0100]);

8. Kinnunen does not explicitly teach:

responsive to the human operator selecting an option available on the graphical user interface, issuing a series of one or more generic Application Program Interface (API) calls representative of the option to the new network device wherein said API calls cause execution of interface software preloaded on the new network device and contain instructions specific to the new network device for implementing the API calls; and

executing the interface software preloaded on the new device to perform device specific equivalents to the series of one or more generic API calls.

9. Hsieh teaches:

responsive to the human operator selecting an option available on the graphical user interface, issuing a series of one or more generic calls representative of the option to the new network device wherein said calls cause execution of interface software preloaded on the new network device and contain instructions specific to the new network device for implementing the calls (Col. 4, lines 30-60, table 1, wherein the parameter fields are configurable by the administrator, and GUI interface is inherently taught, the parameters are pre-existing as part of the storage device program

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prior to programming by the administrator); and

executing the interface software preloaded on the new device to perform device specific equivalents to the series of one or more generic calls (Col. 8, lines 42-52; Table 1; Col. 9, lines 20-35).

10. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Kinnunen and Hsieh because they both dealing with configuration of services. Furthermore, the teaching of Hsieh to allow

responsive to the human operator selecting an option available on the graphical user interface, issuing a series of one or more generic calls representative of the option to the new network device wherein said calls cause execution of interface software preloaded on the new network device and contain instructions specific to the new network device for implementing the calls; and

executing the interface software preloaded on the new device to perform device specific equivalents to the series of one or more generic calls.

would improve the configuration capability for Kinnunen's system by allowing various storage devices on the network to be configured in a centralized location.

11. Kinnunen and Hsieh does not explicitly teach Application Program Interface (API) calls, "Official Notice" is taken that the concept and advantages of providing for API calls are well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include API calls with Kinnunen and Hsieh because it would provide for consistency of programs, wherein plurality of existing building blocks are provided by programmer to provide for consistency of future implementations.

11. As per claim 2, Kinnunen teaches the method of claim 1, wherein said interface stored on the new

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network device comprises a Java language program ([0102]).

12. As per claim 5, Kinnunen teaches the method of claim 1, wherein said lookup service is the Jini lookup service ([0005]).

13. As per claim 6, Kinnunen teaches a method of dynamically configuring a new network device comprising:

registering the new device with a lookup service (Fig 4); and

14. Kinnunen does not explicitly teach:

preloading the new network device with interface software wherein said interface provides instructions specific to the new network device for executing a set of generic Application Program Interface (API) calls;

responsive to receiving API calls, executing the interface software to perform device specific equivalents to the generic API calls.

15. Hsieh teaches:

preloading the new network device with interface software wherein said interface provides instructions specific to the new network device for executing a set of generic Application Program Interface (API) calls (Col. 4, lines 30-60, table 1);

responsive to receiving API calls, executing the interface software to perform device specific equivalents to the generic API calls (Col. 8, lines 42-52; Table 1; Col. 9, lines 20-35).

It would have been obvious to combine teachings of Kinnunen and Hsieh at least for the same rational as rejection to claim 1 above.

16. As per claim 7, claim 7 is rejected for the same reasons as rejection to claim 2 above.

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17. As per claim 10, claim 10 is rejected for the same reasons as rejection to claim 5 above.

18. As per claims 11-12, 15, claims 11-12, 15 are rejected for the same reasons as rejection to claim 1-2, 5 above respectively.

19. As per claims 24-25, 28, claims 24-25, 28 are rejected for the same reasons as rejection to claim 1-2, 5 above respectively.

20. As per claims 29-30, 33, claims 29-30, 33 are rejected for the same reasons as rejection to claim 1-2, 5 above respectively.

21. As per claims 34-35, 38, claims 34-35, 38 are rejected for the same reasons as rejection to claim 1-2, 5 above respectively.

22. As per claim 3, Kinnunen does not explicitly teach:

the method of claim 1, wherein said options available on the graphical user interface comprise:

create disk; create file system; delete disk; delete file system; and share file functions.

23. Hsieh teaches:

create disk; create file system; delete disk; delete file system; and share file functions (see for example, Col. 22, lines 1-47, for advantages of centralized control and configuration).

It would have been obvious to combine Kinnunen and Hsieh at least for the same rational as rejection to claim 1 above.

24. As per claim 4, Kinnunen does not explicitly teach:

the method of claim 1, wherein said device is a network attached storage device.

25. Hsieh teaches:

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the method of claim 1, wherein said device is a network attached storage device (see for example, Col. 1, lines 30-35).

26. As per claims 8-9, claims 8-9 are rejected for the same reasons as claims 3-4 above respectively.

27. As per claims 13-14, claims 13-14 are rejected for the same reasons as claims 3-4 above respectively.

28. As per claim 16, Kinnunen does not explicitly teach NAS storage devices, Hsieh teaches NAS storage devices and interaction between the administrator and said NAS device, see for example, Col. 1, lines 25-35; Col. 4, lines 30-60.

It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Kinnunen and Hsieh because they both dealing with network attached services. Furthermore, the teaching of Hsieh to allow NAS storage service on the network would improve the functionality and capability for Kinnunen's system by providing network storage systems thus allowing clients to store data in a reliable location.

The remainder of claim 16 is rejected for the same reasons as combination of claims 1 above.

29. As per claim 17, claim 17 is rejected for the same reasons as claim 2 above.

30. As per claim 18, claim 18 is rejected for the same reasons as rejection to claim 3 above.

31. As per claims 26-27, claims 26-27 are rejected for the same reasons as claims 3-4 above respectively.

32. As per claims 31-32, claims 31-32 are rejected for the same reasons as claims 3-4 above respectively.

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33. As per claims 36-37, claims 36-37 are rejected for the same reasons as claims 3-4 above respectively.

34. Claim 19, 20, 21, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsieh et al. (hereinafter Hsieh), US 6,751,702, in view of 'Official Notice'.

35. As per claim 19, Hsieh teaches a network attached storage (NAS) device coupled with a network and preloaded with interface software providing instructions specific to the NAS device for executing a set of generic calls (see for example, Col. 4, lines 30-60, table 1, for the same rational as claim 1 above; Col. 1, lines 25-35).

36. Hsieh does not explicitly teach API calls, "Official Notice" is taken that the concept and advantages of providing for API calls are well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include API calls with Hsieh because it would provide for consistency of programs, wherein plurality of existing building blocks are provided by programmer to provide for consistency of future implementations.

37. As per claim 20, Hsieh does not explicitly teach the NAS device of claim 19, wherein said interface stored on the NAS device comprises a java language program. "Official Notice" is taken that the concept and advantages of providing for java language for network storage are well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include java language for a network storage implementation with Hsieh because it would provide for an efficient way of implementing the interface, wherein Jini is an example of such implementation.

38. As per claim 21, claim 21 is rejected for the same reasons as rejection to claim 3 above.

39. As per claim 22, Hsieh inherently teaches a GUI interface, wherein the administrator would need

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to interact with network devices. Note, examiner considers any pop up window or console as part of the GUI for usage of configuration of remote device. The remainder of claim 22 are rejected for the same reasons as rejection to claim 19 above.

40. As per claim 23, claim 23 is rejected for the same reasons as rejection to claim 3 above.

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "DISCOVERY AND CONFIGURATION OF NETWORK ATTACHED STORAGE DEVICES".

- i. US 2002/0099814 Mastrianni et al.
- ii. US 782541 Cohen et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BURGESS, GLENTON B can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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CZ

November 18, 2004



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